



Airworthiness Directive

AD No.: 2021-0054

Issued: 25 February 2021

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name: LEONARDO S.p.A.
Type/Model designation(s): AB139 and AW139 helicopters

Effective Date: 04 March 2021

TCDS Number(s): EASA.R.006

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2020-0185 dated 19 August 2020.

ATA 25 – Equipment / Furnishings – Life Raft Reservoir and Actuator Cable – Replacement / Inspection

Manufacturer(s):

Leonardo S.p.A. Helicopters, formerly Finmeccanica S.p.A, AgustaWestland S.p.A., Agusta S.p.A.; and AgustaWestland Philadelphia Corporation, formerly Agusta Aerospace Corporation

Applicability:

AB139 and AW139 helicopters, all serial numbers (s/n), if equipped with emergency flotation kit, having Part Number (P/N) 4G9560F00111 (15 passengers) or P/N 4G9560F00211 (18 passengers).

Definitions:

For the purpose of this AD, the following definitions apply:

Affected reservoir: Right-hand (RH) and left-hand (LH) life raft reservoirs, having P/N 3G2560V01951 or P/N 3G2560V01251, and having an s/n as listed in Table 1 of the applicable ASB, except those that are marked with an 'R' placed after its s/n.

Serviceable reservoir: A life raft reservoir which is not an affected reservoir, as defined in this AD.

The applicable ASB: Leonardo Alert Service Bulletin (ASB) 139-648 and ASB 139-662, as applicable to affected reservoir s/n.



Groups: Group 1 helicopters are those that have an affected reservoir installed. Group 2 helicopters are those that do not have an affected reservoir installed.

Reason:

An occurrence was reported of inadvertent activation and deployment of the emergency life raft while the helicopter was in flight. Following the deployment, the life raft separated from the helicopter and was lost at sea. Investigation is on-going to determine the cause of this event.

This condition, if not detected and corrected, may lead to further unintended activation and deployment of the emergency life raft in flight and separation with possible impact on the rotors, resulting in reduced control of the helicopter.

To address this unsafe condition, Leonardo issued ASB 139-648 (original issue), providing replacement instructions for certain affected reservoirs and a one-time inspection for all other reservoirs to verify that the life raft actuator cable and the valve pull rod are correctly installed. Consequently, EASA issued AD 2020-0185 to require, for some helicopters, replacement of affected reservoirs and, for other helicopters, inspections of the valve pull rod and the actuator cable of the life raft and, depending on findings, accomplishment of the applicable corrective action(s). That AD also prohibited (re)installation of an affected reservoir on any helicopter.

After that AD was issued, it was determined that more s/n life raft reservoirs are potentially affected by the same issue. To address that, Leonardo issued ASB 139-662 to specify this other batch of affected reservoirs, and to provide additional replacement and inspection instructions to complement certain actions of the initial Leonardo ASB 139-648, also applicable to the new batch. In addition, it was confirmed that some affected reservoirs could become serviceable after a check by the parts manufacturer. These reservoirs are re-identified and marked with an 'R'.

For the reasons described above, this AD retains the requirements of EASA AD 2020-0185, which is superseded, and expands the batch of affected reservoirs to include those identified in Leonardo ASB 139-662.

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

Replacement:

- (1) For Group 1 helicopters: Within the compliance time specified in Table 1 of this AD, as applicable, replace each affected reservoir, as defined in this AD, with a serviceable reservoir in accordance with the instructions of the applicable ASB.

Table 1 – Affected Reservoir Replacement

Affected Reservoir	Compliance Time
s/n as listed in Table 1 of ASB 139-648 (any revision)	Within 25 flight hours (FH) after 26 August 2020 [the effective date of EASA AD 2020-0185]
s/n as listed in Table 1 of ASB 139-662	Within 25 FH after the effective date of this AD



Inspection:

- (2) After replacement of the affected reservoir as required by paragraph (1) of this AD, within 5 FH after the serviceable reservoir exceeds 50 FH since its installation, inspect the valve pull rod of each serviceable reservoir, as defined in this AD, in accordance with the instructions of Part II of ASB 139-648 .
- (3) For Group 2 helicopters: Within 25 FH after 26 August 2020 [the effective date of EASA AD 2020-0185] or within 5 FH after a serviceable reservoir exceeds 50 FH since new (first installation on a helicopter), whichever occurs later, inspect the valve pull rod of each serviceable reservoir, as defined in this AD, in accordance with the instructions of Part II of ASB 139-648.
- (4) For Group 1 and Group 2 helicopters: Within the compliance time as specified in Table 2 of this AD, as applicable, inspect the life raft actuator cable of each serviceable reservoir, as defined in this AD, in accordance with the instructions of the applicable ASB.

Table 2 – Life Raft Actuator Cable Inspection

Group	Compliance Time
1	Before next flight after replacement of the affected reservoir as required by paragraph (1) of this AD
2	Within 25 FH after 26 August 2020 [the effective date of EASA AD 2020-0185]

Corrective Action(s):

- (5) If, during the inspection as required by paragraph (2) or (3) of this AD, as applicable, any discrepancy is detected, before next flight, replace the affected reservoir with a serviceable reservoir in accordance with the instructions of Part II of ASB 139-648.
- (6) If, during the inspection as required by paragraph (4) of this AD, any discrepancy is detected as specified in the applicable ASB, before next flight, adjust the cable rigging in accordance with the instructions of the applicable ASB.

Part Installation:

- (7) Do not install an affected reservoir on any helicopter, as required by paragraph (7.1) or (7.2) of this AD, as applicable.
- (7.1) For Group 1 helicopters: After the replacement as required by paragraph (1) of this AD.
- (7.2) For Group 2 helicopters: From the effective date of this AD.
- (8) For Group 2 helicopters: From the effective date of this AD, installation on a helicopter of a serviceable reservoir, as defined in this AD, is allowed, provided that, concurrent with its installation, the life raft actuator cable of that reservoir is inspected in accordance with the instructions of the applicable ASB and, depending on findings, the cable rigging is adjusted in accordance with the instructions of the applicable ASB.



Ref. Publications:

Leonardo S.p.A. Helicopters ASB 139-648 original issue dated 10 August 2020, or Revision A dated 15 February 2021.

Leonardo S.p.A. Helicopters ASB 139-662 original issue dated 15 February 2021.

The use of later approved revisions of the above-mentioned documents is acceptable for compliance with the requirements of this AD.

Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the [EU aviation safety reporting system](#). This may include reporting on the same or similar components, other than those covered by the design to which this AD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.
5. For any question concerning the technical content of the requirements in this AD, please contact: Leonardo S.p.A. Helicopters. E-mail: cse.aw139.AW@leonardocompany.com.

